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CANADA

DEPARTMENT OF MINES AND TECHNICAL SURVEYS

MINES BRANCH

OTTAWA

FUELS AND MINING PRACTICE DIVISION

INTERNAL REPORT FMP 62/207-ADM

SUMMARY OF EXPLOSIVE, GAS, LIQUID AND SOLID FUELS SAMPLES EXAMINED BY THE ANALYTICAL LABORATORIES IN 1962

by

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December 1962

90-04536/

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SUMMARY

This is the fifth in a series of annual reports commenced in 1958 pertaining to the analyses of explosive materials, gaseous, liquid and solid fuels received and processed by the Explosives Research, Petroleum and Gas Analysis, and Solid Fuel Analysis Sections of the Division.

The primary purpose of the report is to record in detail the origination, description and number of samples processed by the three laboratories in addition to presenting, in summarized form, those for whom these services were provided. Tables 1, 2 and 3 contain the details of throughput of samples whereas the undernoted tabulation gives a recapitulation of the areas serviced, namely:

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*Head, Petroleum and Gas Analysis, Solid Fuel Analysis and Explosives Research Sections, respectively, Fuels and Mining Practice Division.

**Head, Administrative and Clerical Section, Fuels and Mining Practice Division.

SAMPLES

Area	Explosive	Gas	Liquid	Solid	Total	Percent of Total
Other Federal Government Depts.	16	-	14	584	614	29.68
Provincial Governments	-	152	6	-	158	7.64
Commercial	-	8	52	31	91	4.40
Divisional	142	66	352	639	1,199	57.95
Departmental	-	-	7	-	7	0.33
Totals	158	226	431	1,254	2,069	100.0
Determinations	1,500	2,535	6,081	24,732	34,848	

TABLE 1

Explosives Research Laboratory

Summary of Samples

for 1962

Type and Source	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
High Explosives													
1) Authorization	1	3	4	-	4	3	3	-	1	5	2	2	28
2) Run-of-work	-	-	2	-	1	1	-	-	1	1	2	-	8
Blasting Access.	-	-	-	-	1	-	1	-	-	2	-	-	4
Ammunition	-	1	2	-	-	-	-	-	-	-	2	-	5
Fireworks	-	-	3	-	26	3	3	46	2	2	3	9	97
Special Samples													
1) Post Office	-	-	-	1	1	-	-	-	-	-	-	-	2
2) National Defence	5	-	-	-	-	-	-	1	-	-	-	-	6
3) Investigations	-	-	1	-	-	-	3	-	-	1	-	3	8
Totals	6	4	12	1	33	7	10	47	4	11	9	14	158

These samples required approximately 1500 individual determinations.

TABLE 2

Petroleum and Gas Analysis Section
Samples Received in 1962

Source of Sample	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	%
LIQUID AND MISC. SAMPLES														
FRL Projects														
- CGSB Exchanges	3	3	3	3	3	3	3	3	2	4	3	2	35	5.3
- Crude Oil Survey	-	1	7	2	-	2	-	-	-	-	-	-	12	1.8
- Other FRL Sections	4	102	42	1	2	-	16	20	21	48	28	21	305	46.4
Federal Departments or Agencies														
- Mines and Technical Surveys	-	-	-	2	-	-	-	4	-	1	-	-	7	1.0
- National Capital Commission	-	-	-	-	1	-	-	-	-	-	-	-	1	
- Public Works	-	-	-	1	-	-	-	-	-	4	-	1	6	0.9
- Royal Canadian Mint	-	-	3	-	-	-	-	-	-	-	-	-	3	0.5
- Veterans Affairs	1	-	1	-	-	-	1	-	-	1	-	-	4	0.6
Provincial Departments or Agencies														
- N.B. Mines Branch	-	-	-	1	-	-	-	-	-	-	-	-	1	
- Ont. Dept. Energy Resources	-	2	-	3	-	-	-	-	-	-	-	-	5	0.8
Commercial and Private	8	-	-	-	1	1	1	1	5	28	3	4	52	7.9
Sub Total	16	108	56	13	7	6	21	28	28	86	34	28	431	65.6
Determinations	572	564	382	769	34	361	203	637	394	528	151	1486	6081	
GASEOUS SAMPLES														
Mine Air - BC	6	3	6	4	-	2	2	5	4	11	12	11	66	10.0
- Alta	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Sask	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Ont	-	-	2	-	-	3	1	-	-	-	-	-	6	0.9
- Maritimes	7	12	-	-	6	12	12	6	6	3	-	6	70	10.7
- Yukon	-	-	4	-	-	-	-	-	-	-	-	-	4	0.6
- NWT	-	-	1	-	-	-	-	5	-	-	-	-	6	0.9
Natural Gas (Helium)	-	-	-	-	-	-	3	-	-	2	-	-	5	0.8
Miscellaneous														
- FRL Projects	1	1	-	-	-	-	10	-	4	17	20	8	61	9.3
- Other organizations	-	-	-	-	-	3	1	-	-	4	-	-	8	1.2
Sub Total	14	16	13	4	6	20	29	16	14	37	32	25	226	34.4
Determinations	399	170	60	96	97	135	168	421	229	151	324	285	2535	
Total	30	124	69	17	13	26	50	44	42	123	66	53	657	
Determinations	911	734	442	865	131	496	371	1058	623	679	475	1771	8616	

TABLE 3

Solid Fuels Section
Samples Received in 1962

Source of Samples	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total	%
Dept. of National Defence														
1) Army	2	8	19	7	9	10	3	1	7	3	11	7	87	6.94
2) Airforce	6	22	26	48	24	31	6	12	15	19	12	3	224	17.86
3) Navy	4	15	11	33	17	20	11	3	6	2	19	10	151	12.04
Dept. of Veteran's Affairs	-	4	1	3	2	9	-	8	-	-	1	2	30	2.39
Dept. of Public Works	1	-	-	1	1	-	-	-	-	-	-	1	4	0.32
Fuels Division Projects	51	80	19	12	64	39	48	76	65	48	115	22	639	50.96
Other Government Depts.	-	-	1	-	6	-	-	1	-	4	2	-	14	1.12
Commercial Analysis	7	4	2	1	-	1	-	1	10	1	2	2	31	2.47
Dept. National Health and Welfare	-	-	-	4	-	-	2	3	2	1	-	-	12	0.96
Dept. of Justice	4	6	7	10	4	4	5	1	4	4	7	4	60	4.78
Central Mortgage and Housing	-	-	-	1	-	-	-	-	-	-	-	1	2	0.16
Total per Month	75	139	86	120	127	114	75	106	109	82	169	52	1,254	100.00

The above samples required 12,366 duplicate determinations, both physical and chemical.